



## **PATENT**

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/772,518 February 5, 2004 Filed:

Inventor(s):

Robert E. Dye, Darshan K. Shah, Steven W. Rogers, Gregory C. Richardson, and Dean A. Luick

Title:

GRAPHICAL

PROGRAMMING SYSTEM

WITH BLOCK DIAGRAM

**EXECUTION AND** DISTRIBUTED USER INTERFACE DISPLAY Examiner:

Unknown

Group/Art Unit:

2122

Atty. Dkt. No:

5150-38605

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.

Jeffrey C. Hood

## INFORMATION DISCLOSURE STATEMENT

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Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Applicant requests consideration of \( \sum \) the references listed on the attached Form PTO-1449 and/or Lighthereof the additional information identified below in paragraph 3. This application is a continuation of U.S. patent application Serial No. 09/617,600 titled "Graphical Programming System with Distributed Block Diagram Execution and User Interface Display" filed June 13, 2000, whose inventors were Robert Dye, Darshan Shah, Steve Rogers, Greg Richardson, and Dean A. Luick, and is now U.S. Patent No.: 6,802,053. A copy of each reference listed on the Form PTO-1449 was submitted previously with the above-identified patent application, to which the current application claims benefit of priority, and therefore a copy of each reference listed on the enclosed PTO 1449 is not included. A copy of the reference A1 is enclosed.

1. This Information Disclosure Statement is submitted:

	a.	within 3 months of the filing date of a national application other than a continued prosecution application under § 1.53(d); within 3 months of the date of entry of the national stage as set forth in § 1.491 in an International application; before the mailing date of a first Office Action on the merits; or before the mailing of a first Office Action after the filing of a request for continued examination under § 1.114.					
•	b.	after the events of above paragraph 1a and prior to the mailing date of a final					
		Office Action or Notice of Allowance, and thus:   the certification of paragraph 2					
		below is provided, $\alpha r \square$ a fee of \$180.00 is enclosed below.					
	c.	after the mailing date of a final Office Action or a Notice of Allowance and prior to payment of the issue fee, and thus: the certification of paragraph 2 below is provided and a fee of \$180.00 is enclosed below.					
2.	It is he	reby certified:					
		that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Statement, or					
		that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in § 1.56 (c) more than three months prior to the filing of the Statement.					
3.		Consideration of the following additional information (including any co-pending or abandoned U.S. applications, prior uses and/or sales, etc.) is requested:					
4.	For eac	ch non-English language reference listed on the attached Form PTO-1449:					
		reference is made to an English language translation (abstract) submitted herewith, and/or					
		reference is made to a foreign patent office search report (in the English language) submitted herewith, and/or					
		reference is made to an English language translation of a foreign patent office search report submitted herewith, and/or					
		reference is made to the concise explanation contained in the specification of the present application at page(s), and/or					
		reference is made to the concise explanation set forth below:					
	•	2					

5.	$\sqcup$	Applicant also offers the following comments for the Examiner's consideration:
6.		Also enclosed is a copy of a foreign search report citing these references.
7.		The listed documents were brought to the attention of the Applicant(s) after payment of the issue fee in the captioned case. The documents were cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. Applicant(s) request this Information Disclosure Statement and attached Form PTO-1449 be
8.		placed in the file of the captioned application.  Applicant(s) requests that the Information Disclosure Statement and attached Form PTO-1449 and references, which are being filed before the grant of the patent and pursuant to 37 C.F.R. § 1.97(i), be placed in the file of the captioned application.

The Commissioner is hereby authorized to charge any fees which may be required or credit any overpayment to Meyertons, Hood, Kivlin, Kowert & Goetzel PC, Deposit Account No. 50-1505/5150-38605/JCH.

Respectfully submitted,

Jeffrey C. Hood

Reg. No. 35,198

Attorney for Applicant(s)

MEYERTONS HOOD KIVLIN KOWERT & GOETZEL PC P. O. Box 398 Austin, Texas 78767

(512) 853-8800

Date: 6/20/2006

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PTO/SB/08A (07-05) Modified Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Substitu	te for f	form 1449/PTO -Modified		Complete if Known			
			•	Application	Number	10/772,518 ·	
IN	FODI	MATION DISCLOS	HDF	Confirmation No.:		5410	
	INFORMATION DISCLOSURE					February 5, 2004 Robert E. Dye	
	STATEMENT BY APPLICANT			First Named Inventor:			
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				Examiner Name:		Unknown	
				Attorney Docket Number:		5150-38605	
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Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document  Country Code-Number-Kind Code (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	Check if English Translation is attached
		WO 94/10627 A	5/11/94	PCT		
		WO 94/15311 A	7/7/94	PCT		
		WO 96/14618 A	5/17/96	PCT		
		0.367 709	5/1990	EP		
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<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application. <sup>1</sup>Applicant's unique citation designation number (optional).

Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

PTO/SB/08A (07-05) Modified Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449/PTO Modified Complete if Known 10/772,518 **Application Number** Confirmation No.: 5410 INFORMATION DISCLOSURE Filing Date: February 5, 2004 STATEMENT BY APPLICANT First Named Inventor: Robert E. Dve (Use as many sheets as necessary) Art Unit: 2122 Examiner Name: Unknown Attorney Docket Number: 5150-38605 NON PATENT LITERATURE DOCUMENTS Check if Cite Examiner Include name of the author (in CAPITAL LETTERS), title of article (when appropriate), title of the English Initials\* No. item (book, magazine, journal, serial, symposium, catalog, etc.), date, (page(s), volume-issue Translation number(s), publisher, city and/or country where published. is attached DE COSTER, GRAPE-II: An Introduction [online]. Automatic Control and Computer Architectures Department. Katholieke Universiteit Leuven, Belgium, February 22, 1996 [retrieved October 6, 1999] Retrieved from the Internet @ http://www.esat.kuleuven.ac.be/acca COLLAMATI, et al. "Induction Machine stator Fault On-line Diagnosis Based on LabVIEW Environment", Mediterranean Electrotechnical Conference, Vol. 1, pg. 495-498, May 1996. SPOELDER et al., "Virtual Instrumentation: A Survey of Standards and Their Interrelation", Proc. IEEE Instr. and Measurement Tech. Conf., Vol. 1, pp. 676-681, May 1997. SRINIVASAN et al., "LabVIEW program Design for On-Line Data Acquisition and Predictive Maintenance", Proc. Of the 30th Southeastern Symp. On System Theory, pp. 520-524, March 1998. WAHIDANABANU, et al., "Virtual Instrumentation with Graphical Programming for Enhanced Detection and Monitoring of Partial Discharges", Proc. Electrical Insulation Conf. 1997, pp. 291-296, September 1997. "Choosing Block-Diagram Tools for DSP Design",  $\Box$ http://www.bdti.com/articles/info dspmt95blockdiagram.htm, May 9, 2003, pgs. 1-7. Real-Time Workshop for Use with Simulink, User's Guide, May 1994, 229 pages. Guide to Rapid Prototyping with Simulink, Real-Time Workshop and dSPACE, 1995, 16 pages. Real-Time Interface to Simulink, RTI 30, User's Guide, 1995, 125 pages. KEVIN J GORMAN and KOUROSH J. RAHNAMAI, "Real-Time Data Acquisition and Controls Using MatLAB", 1995, 4 pages. SPW – MatLAB Co-Simulation Interface Product Data Sheet, 1996, 2 Signal Processing WorkSystem, MatLAB Interface User's Guide, Oct. 1995, 72 pages.

Examiner Date Considered Signature \*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line

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	_	ATION DISCLOSURE	Filing Date:	February	5, 2004
		IENT BY APPLICANT	First Named Inventor:	Robert 1	E. Dye
(	Use as i	many sheets as necessary)	Art Unit:	2122	
			Examiner Name:	Unknown	·
			Attorney Docket Number:	5150-386	05
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nitials*	No.1	item (book, magazine, journal, serial, syr number(s), publisher, city and/or country	nposium, catalog, etc.), date, (page(s), volume-i	ssue	English Translati
					is attache
			ign Systems, Inc., 1995, 34 pages.		
		Code Generation System Pr	oduct Data Sheet, 1994, 8 pages.		<u> </u>
		SPW/CGS Porting Kits Pro	duct Data Sheet, 11/94, 2 pages.		
		MultiProx for SPW Product			
		DSP ProCoder for SPW Product Data Sheet, 11/94, 4 pages.			
		Xanalog Corporation Sales Manual, January 1987, 8 pages.			<u> </u>
			re and Its Use, 1986, 2 pages.		<u> </u>
		<u> </u>	ming ICONS, 1986, 26 pages.		
	•	Xanalog's CAE System: Th   4, No. 22, 08/1988, 1 page.	e Fastest AT Alive, Mass High T	ech, Vol.	
			ed Engineering Workstation Cor	nes to	
			47, No. 1, July 1986, 3 pages.		<u> </u>
		Xanalog RT Real Time Ana	log and Digital I/O, 10/90, 4 page	· S.	🗀 🖫
•		Xanalog/SC+, 9/90, 4 pages.			
		Xanalog Specializing in Work Simulation, 1987, 24 pages.	rkstations for Continuous Dynan	nic	
		Xanalog Real-Time User Gu	iide, 1994, 28 pages.		
		LEE et al., "Gabriel: A Des DSPs", 11/7/1988, 13 pages.	ign Environment for Programma	able	
			or Hardware and Software for		
		Multiprocessor DSP System			
		Gabriel 0.7 Overview, 1990,			
		JOSEPH T. BUCK and EDV	WARD A. LEE, "Scheduling Dyr	namic	
			ded Memory Using the Token Fl		<u></u>
		Model", http://www.synopsy		- **	
			Methodology for DSP", 1992, 4 p.	ages.	
		PINO et al, "Interface Synth Design Tools", 05/1996, 4 pa	nesis in Heterogeneous System-Lo	evel DSP	
			s Report, "Software Synthesis for	Single-	
			ng Ptolemy", May 1993, 48 pages.		

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application. Applicant's unique citation designation number (optional).

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INFORMATION DISCLOSURE

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Complete if Known

Application Number

10/772,518

Confirmation No.: Filing Date:

5410

STATEMENT BY APPLICANT First Named Inventor: February 5, 2004 Robert E. Dye

Art Unit:

2122

Examiner Name:

Unknown

Attorney Docket Number:

## 5150-38605 NON PATENT LITERATURE DOCUMENTS Check if Examiner Cite Include name of the author (in CAPITAL LETTERS), title of article (when appropriate), title of the English Initials\* No.1 item (book, magazine, journal, serial, symposium, catalog, etc.), date, (page(s), volume-issue Translation number(s), publisher, city and/or country where published. is attached ASAWAREE KALAVADE and EDWARD A. LEE, "A Hardware-Software Codesign Methodology for DSP Applications", 1993, 12 PINO et al., "Automatic Code Generation for Heterogeneous Multiprocessors", 1994, 4 pages. "Tool Chest continues to Grow", Electronic Engineering Times, 12/15/1995, 2 pages. PINO et al., "Mapping Multiple Independent Syunchronous dataflow Graphs onto Heterogeneous Multiprocessors", 10/1994, 6 pages. ASAWAREE KALAVADE and EDWARD A. LEE, "Hardware/Software Co-Design Using Ptolemy - A Case Study", 09/1992, 18 pages. PINO et al, "Software Synthesis for DSP Using Ptolemy", 1995, 15 Vol. 1 – Ptolemy 0.7 User's Manual, 1997, 532 pages. i-Logix Product Overview, 1996, 52 pages. Press Release, "i-Logix Statemate MAGNUM Supports PCs", 01/31/1997, 2 pages. Press Release, "i-Logix Signs Reseller Agreement for Virtual Prototypes, Inc.'s VAPS Product Line", 02/11/1997, 2 pages. Press Release, "i-Logix Introduces Rhapsody, Object-Oriented analysis, Design and Implementation Tool", 02/10/1997, 2 pages. Statement/C Product Overview, 1995, 4 pages. Press Release, "i-Logix and Integrated Systems Link Statemate MAGNUM and MATRIX AutoCode" 01/03/1997, 2 pages Press Release, "i-Logix and Wind River unveil Industry's First Rapid Prototyping Solution for Testing Embedded Systems at ESC West in San Jose", 09/17/1996, 3 pages. Press Release, "i-Logix Inc. Endorses Unified Modeling Language", П 01/16/1997, 1 page. PHILIP DEAN LAPSLEY, "Host Interface and Debugging of Dataflow DSP Systems", Thesis, 1991, pgs. 1-51. LEE et al., "Gabriel: A Design Environment for Programmable Ш DSPs", 1988, pgs. 1-11. П

Examiner	Date Con-	sidered
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<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application. <sup>1</sup>Applicant's unique citation designation number (optional).

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			Attorney Docket Number:	5150-386		
NON PATENT LITERATURE DOCUMENTS						
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		number(s), publisher, city and/or country wh	·		is attached	
			n Environment for DSP", IEEE			
		· -	eech, and Signal Processing, Vo	ol. 37,		
		No. 11, Nov. 1989, pgs. 1751-17		T 3.61		
		BIER et al., "Gabriel: A Desig Issue – Vol. 10, No. 5, 1990, pg	gn Environment for DSP", IEE. s. 28-45.	Ł Micro		
			Programming Environment",	IEEE,		
		pages 222-230, 1988.				
			or PCT/US 98/10916 dated 9/17			
			, "Custom Embedded Commun			
		· ·	lings of Embedded Systems Cou			
	·	East, March 10-12, 1997, Boston, Massachusetts, pp. 637-657.				
		LABROSSE, JEAN, "Inside Real-Time Kernels," Conference				
		Proceedings of Embedded Systems Conference East, March 10-12,				
		1997, Boston, Massachusetts, pp. 205-214.				
		LABROSSE, JEAN, "Designing with Real-Time Kernels,"				
			ibedded Systems Conference Es	ast,		
		March 10-12, 1997, Boston, M			<del></del>	
•			Williams Stallings, Prentice H			
			al-Time Scheduling", pp. 394-4	15.		
		SHEARMAN, SAM, Assoc. Ed			L	
			is-system simulation", Personal			
		Engineering, June 1997, pp. 18	5-3/.	4		
			nvironment for WASMII: A Da			
			l Hardware," Field Programma			
			and Applications, 4 <sup>th</sup> Internati			
		Proceedings, Berlin, Germany	nable Logic and Applications, F	T.L. 74		
<u> </u>				nle		
	- 00	EDWARDS, et al., "Software acceleration using programmable				
		hardware devices," IEEE Proceedings: Computers and Digital Techniques, vol. 143, no. 1, January 1996, pp. 55-63.				
			ynthesis and Generating FPGA	s with		
					J	
		the BEDROC System," Journal of VLSI Signal Processing, vol. 6, no. 2, August 1993, pp. 191-214.				
			or PCT/US 98/13040 mailed 12/	22/98.		
	_	"LabVIEW USER MANUAL	for Windows", National Instru	ments		
		Co., 09/1994 pp 4/1-21.	,			
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			Examiner Name:	Unknown				
			Attorney Docket Number:	5150-386	05			
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		BEGUELIN et al., "Visualizat Environment", IEEE, 06/1993	00 0	terogenous				
		JAMAL et al., "The Applicabi		ming				
		Language LabVIEW to Large pp 99-106.						
		PER-ARNE WIBERG, "Grap	hical Programming of Tim	ie-				
		Deterministic Real-Time Syste	9 9					
		ADE, M; LAUWEREINS, R;	PEPERSTRAETE, J.A.; H	ardware-				
		Software Codesign with GRAI	PE, Proceedings of the Sixt	h IEEE				
		International Workshop on Ra	apid System Prototyping, 6	/9/95 <b>,</b> pp.				
		40-47.						
		LAUWEREINS, R; ENGELS,						
		Grape-II: A System-Level Pro						
		Applications, Computer, Vol. 28, Issue 2, 2/95, pp. 35-43.						
		WEBAN, A., BROWN, G. "A Software Development System						
		forFPGA-based Data Acquisition Systems", FPGAs for Custom						
		Computing Machines, 1996						
	,	International Search Report, A mailed December 19, 2000						
		SHAHEEN et al., "Remote La	-	•				
		Proceeding of American Conti 1998	. 0	ŕ				
	0	GILLET et al., "Telepresence:						
		World Experimentation Educa	ation", CiteSeer, Pages: 1-6	5, 1997				
		JOHNSTON et al., "High-Spe						
•		Line Instrumentation Systems		onal				
		Laboratory, pages 1-19, Augus	st 1997					
•	A1	MARIO ŽAGAR, IGOR ČAV						
		"CORBA-based Remote Instru	,		·			
		Electrotechnical Conference (I	MELECON); May 1998; pa	ages 1294-				
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